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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/801,859

03/17/2004

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EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT

PAPER NUMBER

3661

MAIL DATE

DELIVERY MODE

07/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/801,859

Applicant(s)

SAKURAI ET AL.

Examiner

Christine M. Behncke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/5/06 & 3/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the application filed 17 March 2004, in which claims 1-9 were presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Gitlin et al., US 6,999,869.

Gitlin et al. discloses an electronic control unit for automobiles comprising a microcomputer for operating a control signal for controlling a state of an automobile on the basis of an input signal from a sensor (microprocessor 22) and an output driver circuit for driving an actuator by said control signal obtained by said microcomputer, wherein (drivers 31-34); said output driver circuit is composed of power transistors in correspondence to a plurality of channels (figures 2, column 5, lines 41-45), a serial communication interface for executing serial communication with said microcomputer (column 5, lines 41-45, column 7, lines 16-29), and a driver IC which is a semiconductor circuit having integrated timer circuits for generating a pulse width modulation signal and a pulse signal (TPU 23); and said timer circuit, on the basis of said control data

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signal received from said microcomputer by said serial communication interface, generates said pulse width modulation signal and said pulse signal (column 7, lines 10-54, column 16, line 47-column 18, line 49).

Gitlin et al. further discloses wherein the microcomputer supplies a clock signal for timer count to said timer circuit built in said driver IC (column 7, lines 16-29); and the timer circuit, on the basis of a control data signal for setting the frequency and duty of the pulse width modulation signal transmitted from said microcomputer, generates a pulse width modulation signal (column 18, lines 25-49).

Gitlin et al. further discloses wherein the driver IC additionally has an integrated A-D converter, converts a sensor signal to a digital signal by the A-D converter, and transmits a conversion result to the microcomputer via the serial communication (figure 1A, column 5, lines 41-45).

Gitlin et al. further discloses wherein in addition to the driver IC, an A-D conversion IC composed of an A-D converter and a serial communication interface, wherein an A-D conversion result by the A-D converter is transmitted to the microprocessor via the serial communication (figure 1A).

Gitlin et al. discloses an electronic control unit for automobiles comprising an output driver circuit for driving an actuator by a control signal obtained by a microcomputer for operating said control signal for controlling the state of an automobile on the basis of an input signal from a sensor (drivers 31-34, figure 1A), said output driver circuit including power transistors in correspondence to a plurality of channels (figure 2), a serial communication interface for executing serial communication with said

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microcomputer (column 5, lines 41-45, column 7, lines 16-29), and a driver IC which is a semiconductor circuit having integrated timer circuits for generating a pulse width modulation signal and a pulse signal (column 5, lines 41-45, column 7, lines 16-29), wherein said timer circuit, on the basis of a control data signal for setting output start timing and output end timing or output start timing and pulse width of said pulse signal transmitted from said microcomputer, generates a pulse signal (figure 3F).

Allowable Subject Matter

Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on 8:30 am- 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMB



THOMAS BLACK
SUPERVISORY PATENT EXAMINER